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# Indian Standard SPECIFICATION FOR POCKET KNIVES (Revised)

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BUREAU OF INDIAN STANDARDS MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEW DELHI 110002

## Indian Standard SPECIFICATION FOR POCKET KNIVES

(Revised)

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# Indian Standard SPECIFICATION FOR POCKET KNIVES

(Revised)

#### O. FOREWORD

- **0.1** This Indian Standard (Revised) was adopted by the Indian Standards Institution on 26 September 1966, after the draft finalized by the Cutlery Sectional Committee had been approved by the Consumer Products Division Council.
- 0.2 This standard was first published in 1958. It is one of a series of Indian Standard specifications on cutlery items prepared at the instance of the Chief Inspectorate of General Stores (Ministry of Defence) and Office of the Development Commissioner, Small Scale Industries (Ministry of Industry). Other standards published so far in the series are given at page 10.
- 0.3 Revision has been taken up on account of necessity to metricize the values given in the standard as also to include other requirements of pocket knives. Pocket knives are also known by the name pen knives in certain parts of the country.
- 0.4 This standard contains clauses which call for agreement be the purchaser and the supplier and which permit the purchaser to use his option for selection to suit his requirements. The relevant clauses are 3.1, 3.2, 4.4 and 9.1.
- **0.5** This standard provides for alternative materials including b ass and stainless steel. For the guidance of purchasers it is suggested that due to import restrictions only indigenous materials may be opted for in the indents.
- 0.6 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS: 2-1960\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

<sup>\*</sup>Rules for rounding off numerical values (revised).

#### 1. SCOPE

1.1 This standard covers the requirements for pocket knives.

#### 2. MATERIALS

- 2.1 Blades The blades shall be made of carbon steel conforming to designation C70 of Schedule II or of stainless steel conforming to designation 30Cr13 of Schedule V of IS: 1570-1961\* with sulphur and phosphorus not exceeding 0.05 percent each.
- 2.2 Springs The springs shall be made from carbon steel conforming to designation T50 of Schedule VI of IS:1570-1961\* with sulphur and phosphorus not exceeding 0.05 percent each.
- 2.3 Handle Scales The handle scales may be made of stainless steel, brass, wood, plastics, horn or mild steel (nickel plated).
- 2.4 Rivets The rivets used shall be made of mild steel, brass, or stainless steel except hinge pin and central pin of blade, which shall be of medium carbon steel in normalized condition.
- 2.5 Bolster The bolster, when provided, may be solid forged with the handle scales or made up of mild steel, brass or stainless steel.

#### 3. SHAPES AND DIMENSIONS

- 3.1 Typical shapes of pocket knives are shown in Fig. 1 and 2. Fig. 1 shows a usual pocket knife with one blade, while Fig. 2 shows a pocket knife with one blade and a cork opener. However, the knives with different shapes may be supplied by prior agreement between the purchaser and the supplier.
- 3.2 The pocket knives shall be of the following sizes:

Blade length (l)

45, 55 and 65 mm

Handle length (L)

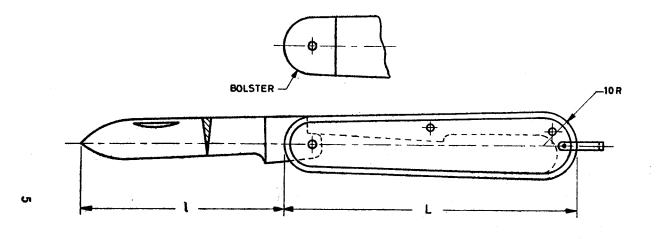
65, 75 and 85 mm

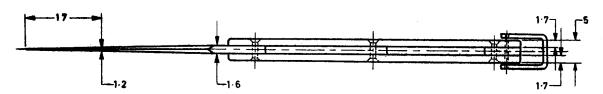
However, the detailed dimensions are left to the discretion of manufacturers and are subject to the agreement between the purchaser and the supplier.

#### 4. MANUFACTURE

4.1 The handle scales shall fit closely to the metal lining except when the scales themselves form the body. The blade and the spring shall be so housed as not to have any gaps and the blade shall be free to open or close without shake or play.

<sup>\*</sup>Schedules for wrought steels for general engineering purposes.





All dimensions in millimetres.

ig. 1 Pocket Knife, Typical

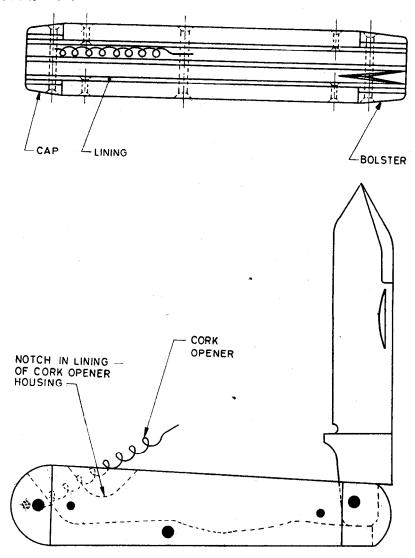


Fig. 2 Pocket Knife with Cork Opener, Typical

4.2 The cutting edge shall lie in the central plane of its housing and shall not strike any part of the spring when the knife is closed and the blade shall lie entirely in the recess provided in the handle so that it does not project beyond when knife is closed.

- **4.3** A nail groove shall be made on the blade for easy opening. The blade shall open easily under normal pull exerted by the hand.
- 4.4 A ratchet lock may also be provided if so desired by the purchaser.

#### 5. HARDNESS

5.1 The blade shall be well and evenly hardened and tempered to give a hardness of 500 to 550 HV. The hardness shall be tested as near as practicable to the cutting edge.

#### 6. WORKMANSHIP AND FINISH

- **6.1** The knife shall be free from cracks, seams, scales, pits, burrs and other defects. The blade shall taper uniformly towards the cutting edge.
- **6.2** The blades shall be free from rough grinding marks and shall be finished bright all over. The grinding of the blade shall give a uniform taper symmetrical on both sides. The entire length of the cutting edge shall be sharp and ready for use. The cutting edge shall be capable of cutting smoothly deodar and kail wood using moderate force.

#### 7. MARKING

- 7.1 Each knife shall be legibly and indelibly marked, preferably by engraving or etching, on the blade with manufacturer's name, initials or registered trade-mark and the words 'Made in India'.
  - 7.1.1 The knives may also be marked with the ISI Certification Mark.

Note — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

#### 8. PACKING

8.1 The blade if made of carbon steel shall be coated with a suitable rust preventive. Each knife shall then be wrapped in a waxed paper or put in a polyethylene bag and then packed in cartons. Each carton shall bear the manufacturer's name or trade-mark, description of contents and the number of knives it contains, and the country of manufacture.

#### 9. SAMPLING

9.1 Sampling and acceptance criteria for pocket knives shall be as agreed to between the purchaser and the supplier. A recommended scheme for the same is given in Appendix A.

#### 10. TESTS

- 10.1 Practical Test for Soundness The knife shall be made to strike 12 full blows from a height of 250 mm on an aluminium block of not less than 99 percent purity or on a block of well-seasoned timber, such as teak, sal, sissoo or rosewood. The timber employed shall have a moisture content of not more than 12 percent. The blows shall be struck in such a manner that practically the entire length of the cutting edge hits the surface of aluminium or wooden block. The cutting edge shall neither show any sign of distortion after the test nor there be any damage to any other part of the knife.
- 10.2 Staining Test for Knives Made of Stainless Steel The stainless steel knife blade wher dipped for 16 hours in the solution (see 10.2.1) shall not show any sign of staining after removal from the solution at the end of above period.
- 10.2.1 Five grams of glacial acetic acid (99 percent) dissolved in distilled water to make 100 ml.

#### APPENDIX A

( *Clause* 9.1)

### RECOMMENDED SAMPLING SCHEME AND CRITERIA FOR CONFORMITY FOR POCKET KNIVES

#### A-1. LOT

A-1.1 The pocket knives of the same shape, dimensions and manufactured from the same raw materials under essentially similar conditions of manufacture shall constitute a lot.

#### A-2. SELECTION OF SAMPLE

A-2.1 To ascertain the conformity of the lot with the requirements of this standard, the number of knives to be selected at random from the lot shall be in accordance with col 1 and 2 of Table 1.

TABLE 1 SAMPLE SIZE AND CRITERION FOR CONFORMITY

LOT SIZE (NUMBER OF KNI IN THE LOT)	Sample Size ves (Number of Knives to be Selected)	ACCEPTANCE NUMBER
(1)	(2)	(3)
Up to 100	5	0
101 " 150	8	0
151 " 300	1,3	1
301 " 500	20	1
501 and abo	ve 32	2

#### A-3. NUMBER OF TESTS AND CRITERION FOR CONFORMITY

- A-3.1 The knives as selected according to A-2.1 shall be tested for (a) shapes and dimensions (see 3), (b) hardness (see 5.1), (c) workmanship and finish (see 6), (d) soundness (see 10.1), and (e) staining (see 10.2).
- A-3.2 Criteria for Conformity The lot shall be declared conforming to the requirements of this standard if the condition given in A-3.2.1 is satisfied.
- A-3.2.1 The number of knives found defective for one or more characteristics mentioned in A-3.1 is less than or equal to corresponding acceptance number given in col 3 of Table 1.

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<sup>†</sup>Sales Office in Bombay is at Novelty Chambers, Grant Road, 89 65 28 Bombay 400007

<sup>‡</sup>Sales Office in Bangalore is at Unity Building, Narasimharaja Square, 22 36 71 Bangalore 560002